

WRD-180 Double Ridge Waveguide 40 dB Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 GHz, Brass

Waveguide Couplers Technical Data Sheet

PEWRD180CP01-40

The PEWRD180CP01-40 is a WRD-180 Directional Broadwall double ridge waveguide coupler with 2.92mm female coupled port that operates in the frequency range of 18 to 40 GHz. This Waveguide component has a maximum VSWR of 1.6:1. These designs are made of painted copper alloy and incorporate a broad wall configuration that result in a mid-band nominal coupling value of 10, 20, 30, 40 or 50 dB. Common applications for this component would be where power measurements are required within a system for measuring/sampling power or frequency monitoring with minimal signal loss to the main transmission line. Pasternack offers a complete family of waveguide Crossguide and Broadwall couplers that are in-stock and ship same day.

Features

- Three Port Broadwall Waveguide Coupler
- 40±2 dB Nominal Coupling Level
- Integrated 2.92mm Female Connector coupled port
- 18 GHz to 40 GHz Frequency Range
- Main Line VSWR < 1.25:1
- Max Power 250W (CW)

Applications

- Test Benches
- Radar
- Satellite
- Microwave Radio
- Attenuation Measurements
- Power Measurements
- Source Leveling

Electrical Specifications

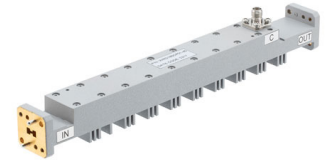
Description	Minimum	Typical	Maximum	Units
Frequency Range	18		40	GHz
Impedance		50		Ohms
Coupler				
Nominal Coupling Level		40		dB
Directivity	18			dB
Insertion Loss			0.5	dB
Main Line VSWR			1.25:1	
Secondary Line VSWR			1.6:1	
Coupling Flatness			±2	dB
Input Power (CW)			250	Watts
Input Power, Peak			1	kWatts

Mechanical Specifications

Size

Length	7.87 in [199.9 mm]
Width	0.88 in [22.35 mm]
Height	0.88 in [22.35 mm]
Weight	1.14 lbs [517.1 g]

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WRD-180 Double Ridge Waveguide 40 dB Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 GHz, Brass PEWRD180CP01-40](#)



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Interface

Waveguide Size	WRD-180
Flange Type	Cover
RF Connector Type	2.92mm Female
Coupler Body Material and Plating	Brass, Gray

Environmental Specifications

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

WRD-180 Double Ridge Waveguide 40 dB Broadwall Coupler, 2.92mm Female Coupled Port, 18 GHz to 40 GHz, Brass from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

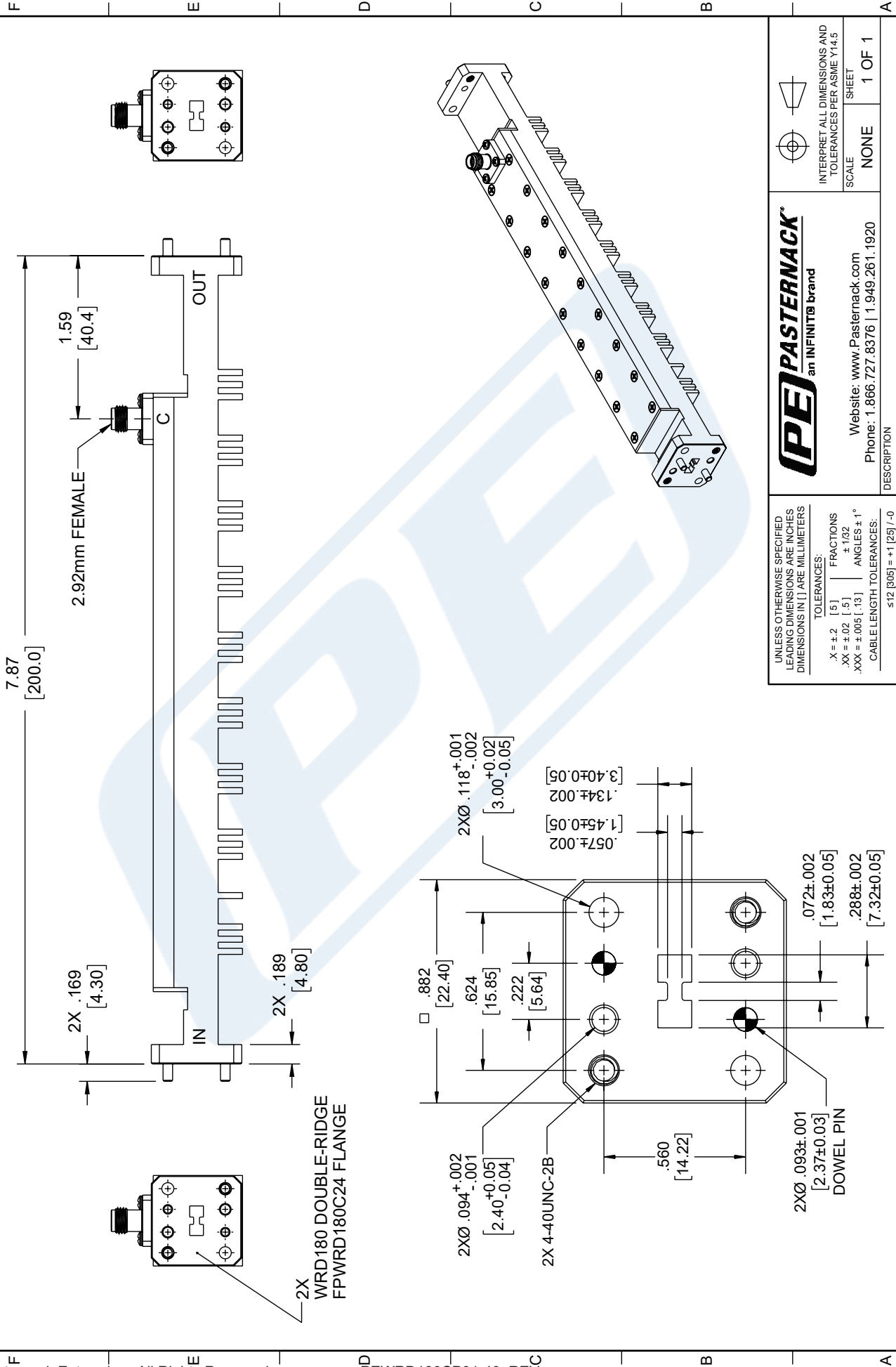
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URL: <https://www.pasternack.com/wrd180-waveguide-40db-broadwall-coupler-40ghz-pewrd180cp01-40-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PEWRD180CP01-40 CAD Drawing

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INTERPRET ALL DIMENSIONS AND TOLERANCES PER ASME Y14.5

SCALE: NONE

SHEET: 1 OF 1

DESCRIPTION

WRD-180 Waveguide Coupler with 2.92mm Female Connector, 40dB Coupling

SIZE	CAGE CODE	DRAWN BY	ITEM NO.
A	53919	KDANG	PEWRD180CP01-40

REV

A

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

X = ±.2 [5] FRACTIONS
XX = ±.02 [.5] ANGLES ± 1°
XXX = ±.005 [.13] CABLE LENGTH TOLERANCES:

≤12 [305] = ±1 [25] / -0
>12 [305] ≤ 60 [1524] = ±2 [51] / -0
>60 [1524] ≤ 120 [3048] = ±4 [102] / -0
>120 [3048] ≤ 300 [7620] = ±6 [152] / -0
>300 [7620] = ±5% / -0

ALL DIMENSIONS ARE FOR REFERENCE ONLY
AND SUBJECT TO CHANGE WITHOUT NOTICE.

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